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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,419	09/30/2003	Yo Yamato	0425-1080P	2706

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EXAMINER	
GELLNER, JEFFREY L	
ART UNIT	**PAPER NUMBER**
3643	

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/673,419	YAMATO ET AL.	
	Examiner	Art Unit	
	Jeffrey L. Gellner	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 5-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 2 and 3, the terms "gas generating composition" and "reducing material" render the claim indefinite because it is unclear whether the "gas generating composition" comprises a fuel and an oxidizing agent with the "reducing material" being a different, or second, fuel/catalyst or whether the "gas generating composition" is the oxidizing agent and the "reducing material" is the fuel. Examiner considers Applicants to be claiming, in claim 1, a "gas generating composition" of a fuel and oxidizer another constituent that is the "reducing material."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundstrom et al. (US 5,756,929; 4th document listed on page 1 of Applicant's 1449) in view of Kirchoff et al. (US 3,972,545).

As to claim 1, Lundstrom et al. disclose a gas generating composition for air bags comprising a gas generating compositions ("guanidine compounds" of col. 2 lines 21-35 and "[s]uitable oxidizer" of col. 3 lines 15-22), a reducing material ("guanidine" of col. 3 lines 33-42), an ignition means (col. 4 lines 8-16). Not disclosed is an inflator with a coolant/filter surrounding a perimeter of the gas generating composition and the reducing material in the inflator. Kirchoff et al., however, discloses an inflator (Fig.) with a coolant/filter (see abstract) with the coolant/filter (28 of Fig.) surrounding a perimeter of the gas generating composition (in that the filter (28) is on one side of the composition) and the reducing agent in the inflator (in that the gas generating composition would be placed in the inflator). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the composition of Lundstrom et al. by using in the inflator of Kirchoff et al. so as to have a use for the composition.

As to claims 2, 3, and 12, Lundstrom et al. as modified by Kirchoff et al. further disclose a means for preventing the change or variance of NOx reducing effect being a partition plate made of plastic (15 and 23 of Fig. of Kirchoff et al.) .

As to claim 5, Lundstrom et al. as modified by Kirchoff et al. further disclose an impact sensor (Kirchoff et al. at col. 2 lines 15-17), control means for imputing a detected signal and outputting an operation signal to the ignition means (implied by Kirchoff et al. at col. 2 lines 15-17) and an air bag (Kirchoff et al. at col. 1, last line).

As to claim 11, the limitations of claim 1 are disclosed and described above. Not disclosed is the reducing catalyst being from 0.1 to 20 parts by weight on the basis of 100 of the reducing material. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Lundstrom et al. as modified by Kirchoff et al. by having the reducing catalyst being from 0.1 to 20 parts by weight on the basis of 100 of the reducing material depending upon the goal of the composition.

As to claim 13, Lundstrom et al. as modified by Kirchoff et al. further disclose a plate that is aluminum (23 of Fig. and col. 3 lines 5-8).

As to claims 14 and 15, the limitations of claim 3 are disclosed and described above. , Lundstrom et al. as modified by Kirchoff et al. further disclose a plate that is aluminum (23 of Fig. and col. 3 lines 5-8). Not disclosed is the partition plate being 30 to 200 microns or 1 to 3 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Lundstrom et al. as modified by Kirchoff et al. by having the partition plate being 30 to 200 microns or 1 to 3 mm so as to achieve a particular goal.

As to claims 6 and 7, Lundstrom et al. disclose a gas generating composition for air bags comprising a gas generating agent ("guanidine compounds" of col. 2 lines 21-35), a reducing material that is a guanidine derivative ("triaminoguanidine salts" of col. 3 lines 33-42), an ignition means (col. 4 lines 8-16). Not disclosed is an inflator with a coolant/filter surrounding a perimeter of the gas generating composition and the reducing material in the inflator. Kirchoff et al., however, discloses an inflator (Fig.) with a coolant/filter (see abstract and 28 of Fig.) surrounding a perimeter of the gas generating composition (in that the filter (28) is on one side of

the composition) and the reducing agent in the inflator (in that the gas generating composition would be placed in the inflator). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the composition of Lundstrom et al. by using in the inflator of Kirchoff et al. so as to have a use for the composition. The combination of Lundstrom et al. and Kirchoff et al. inherently perform the method steps recited in claim 6.

As to claims 8 and 9, Lundstrom et al. as modified by Kirchoff et al. further disclose a reducing catalyst that is a copper oxide (from "transition metal oxides" of col. 3 lines 63-64 of Lundstrom et al.).

As to claim 10, the limitations of claim 8 are disclosed and described above. Not disclosed is the reducing catalyst being from 0.01 to 200 parts by weight on the basis of 100 of the reducing material. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Lundstrom et al. as modified by Kirchoff et al. by having the reducing catalyst being from 0.01 to 200 parts by weight on the basis of 100 of the reducing material depending upon the goal of the composition.

Response to Arguments

Applicant's arguments filed 29 November 2005 have been fully considered but they are not persuasive. Applicants' arguments are: (1) the present invention has a coolant/filter (3) surrounding the combustion chamber while the cooling screens 28 of Kirchoff are only at one end of the slender combustion chamber (Remarks page 7, last 3 lines); and, (2) the two references used by the Examiner teach away from each other because they disclose generating agents (or compositions) that differ in burning rate (Remarks page 8, 1st and 2nd para.).

As to argument (1), the structures of the present invention and Kirchoff et al. may differ in the amount and placement of their coolant/filters, but as presently claimed by Applicants Kirchoff et al. reads on the language of claims 1 and 6. Examiner considers "perimeter" to have the definition of "a line or strip bounding or protecting an area" (Merriam-Webster's Collegiate Dictionary, 10th ed., at page 863). The screens 30 of Kirchoff et al. bound a line of the inflator area (generally 17 of the Fig. of Kirchoff et al.).

As to argument (2), Kirchoff et al. disclose that "any number of compositions having the required properties relating to toxicity, heat of combustion, and rate of combustion" can be used in their inflator (Kirchoff et al. at col. 2 lines 59-63). The goal of the invention of Kirchoff et al. is to have an inflator that will "respond to a signal and adjust the rate of inflation" (Kirchoff et al. at col. 2 lines 1-3). This is achieve by the structure of the inflator (see Kirchoff et al. at col. 2 lines 15-28). The generating composition, then, is not dispositive and it would be obvious to use many gas generating compositions, including the composition of Lundstrom et al., in the inflator of Kirchoff et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey L. Gellner
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Art Unit 3643